



RECEIVED
SEP 25 2002
TECH CENTER 1600/2900

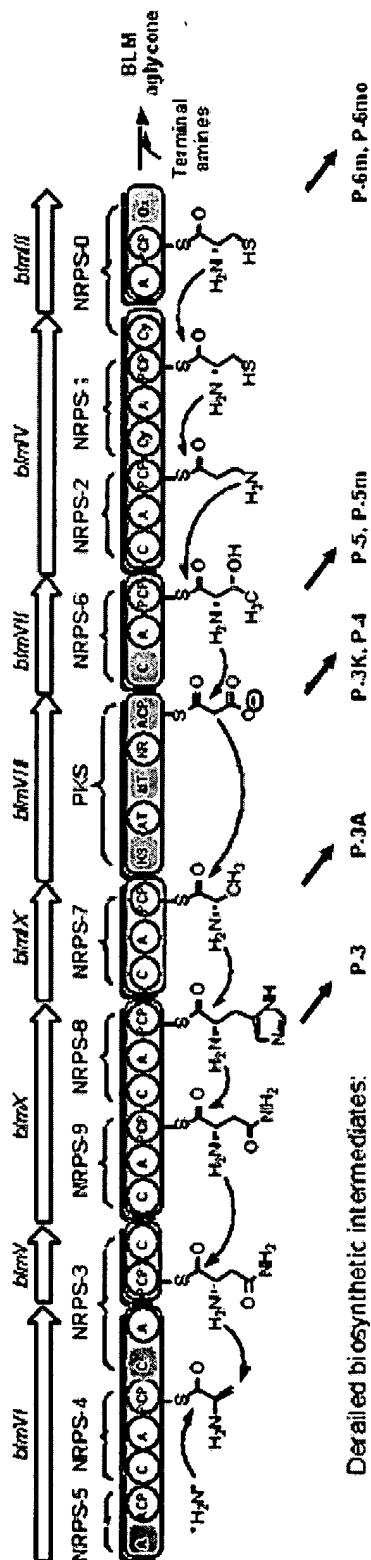
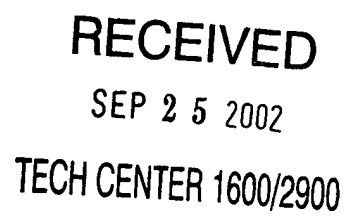


Fig. 1B



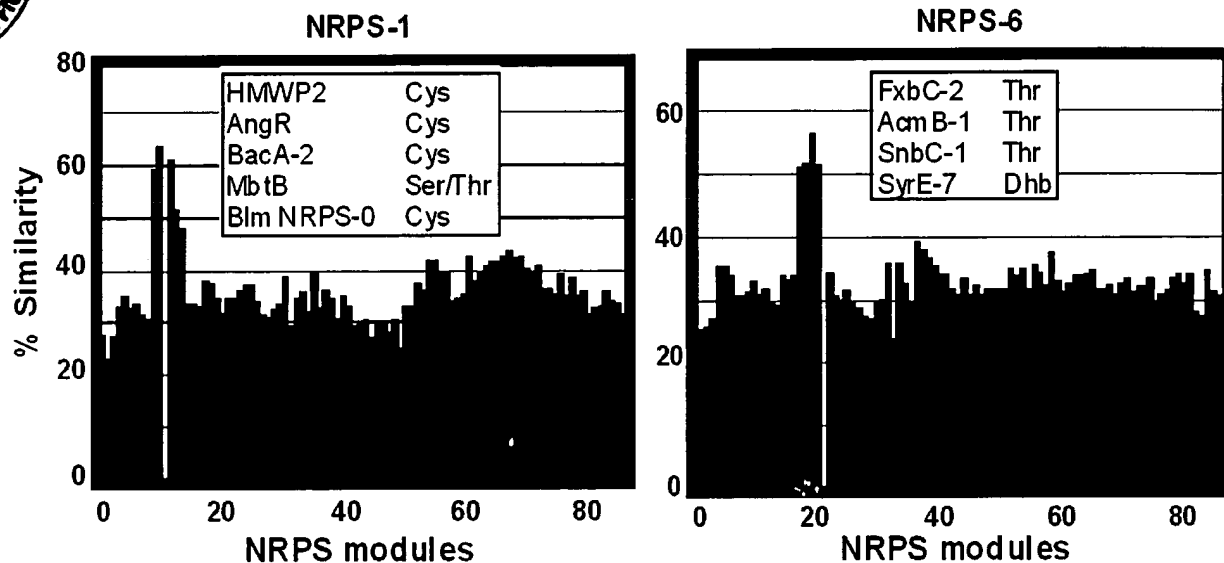


Fig. 3A

| | | Residues (PheA numbering) (16) | | | | | | | |
|-------------------|------------|--------------------------------|-----|-----|-----|-----|-----|-----|-----|
| NRPS module | Substrate | 236 | 239 | 278 | 299 | 301 | 322 | 330 | 331 |
| HMWP2 | Cys | L | Y | N | M | S | M | I | W |
| AngR | Cys | L | Y | N | M | S | M | I | W |
| BacA-2 | Cys | L | Y | N | L | S | L | I | W |
| MbtB | Ser/Thr | M | L | N | A | G | L | V | H |
| Blm NRPS-0 | Cys | L | Y | H | L | G | L | P | W |
| Blm NRPS-1 | Cys | L | Y | N | L | S | L | I | W |
| SyrE-7 | Dhb | F | W | N | V | G | M | V | H |
| AcnB-1 | Thr | F | W | N | V | G | M | V | H |
| SnbC-1 | Thr | F | W | N | I | G | M | V | H |
| FxbC-2 | Thr | F | W | N | V | G | M | V | H |
| Blm NRPS-6 | Thr | F | W | S | V | G | M | I | H |

Fig. 3B



RECEIVED
SEP 25 2002
TECH CENTER 1600/2900

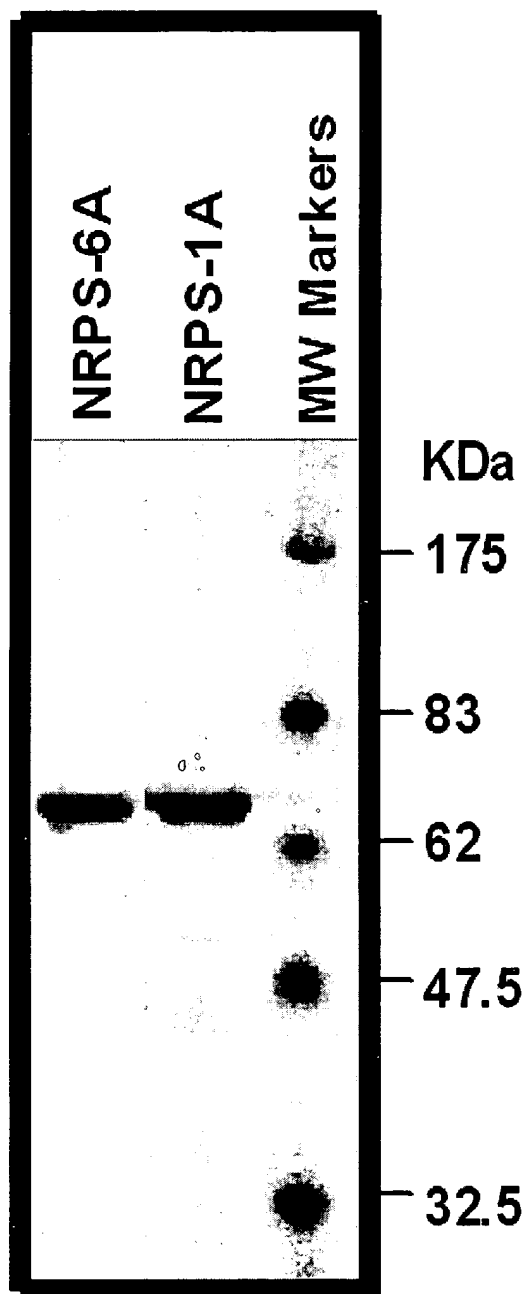


Fig. 3C

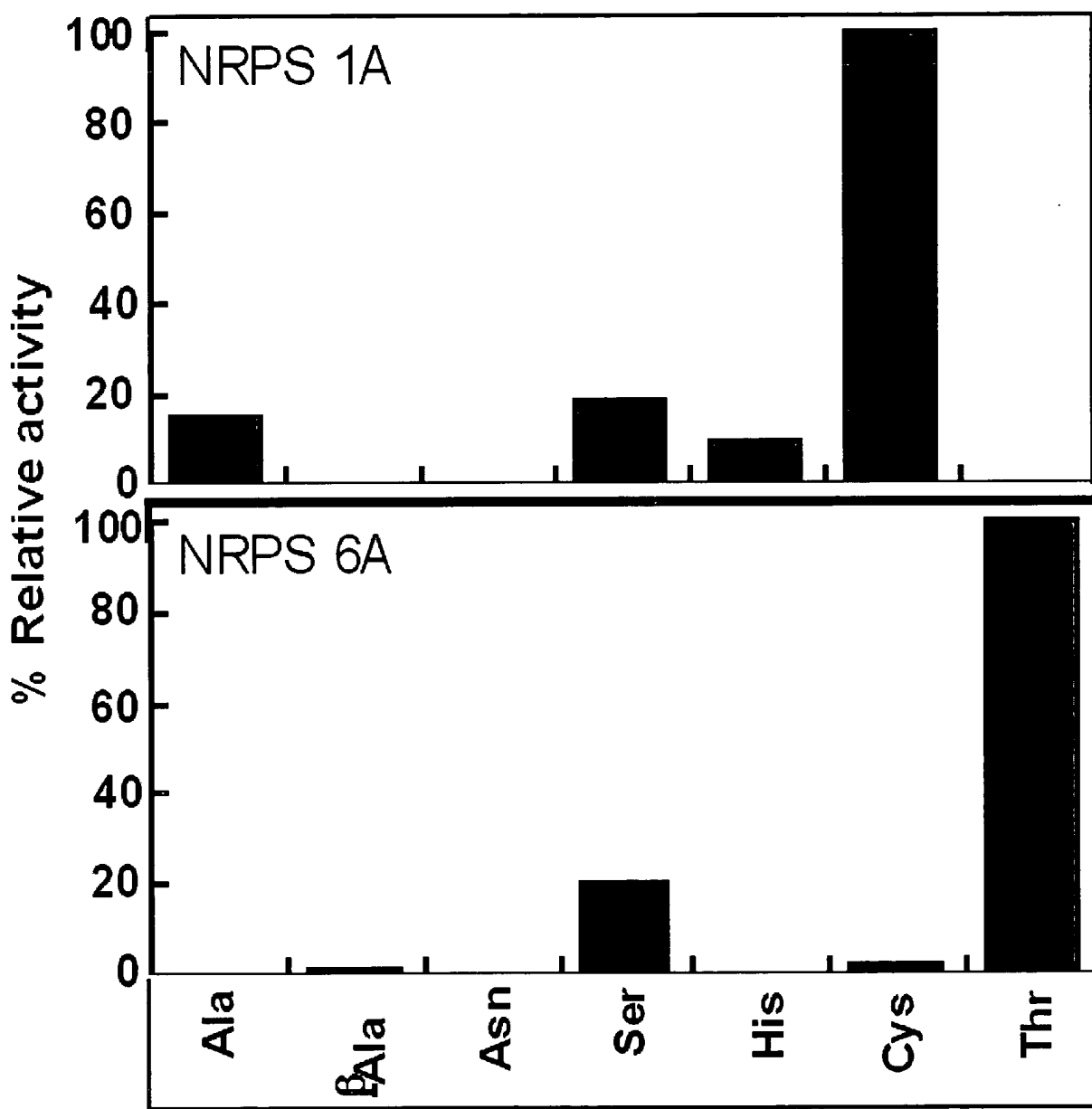


Fig. 3D

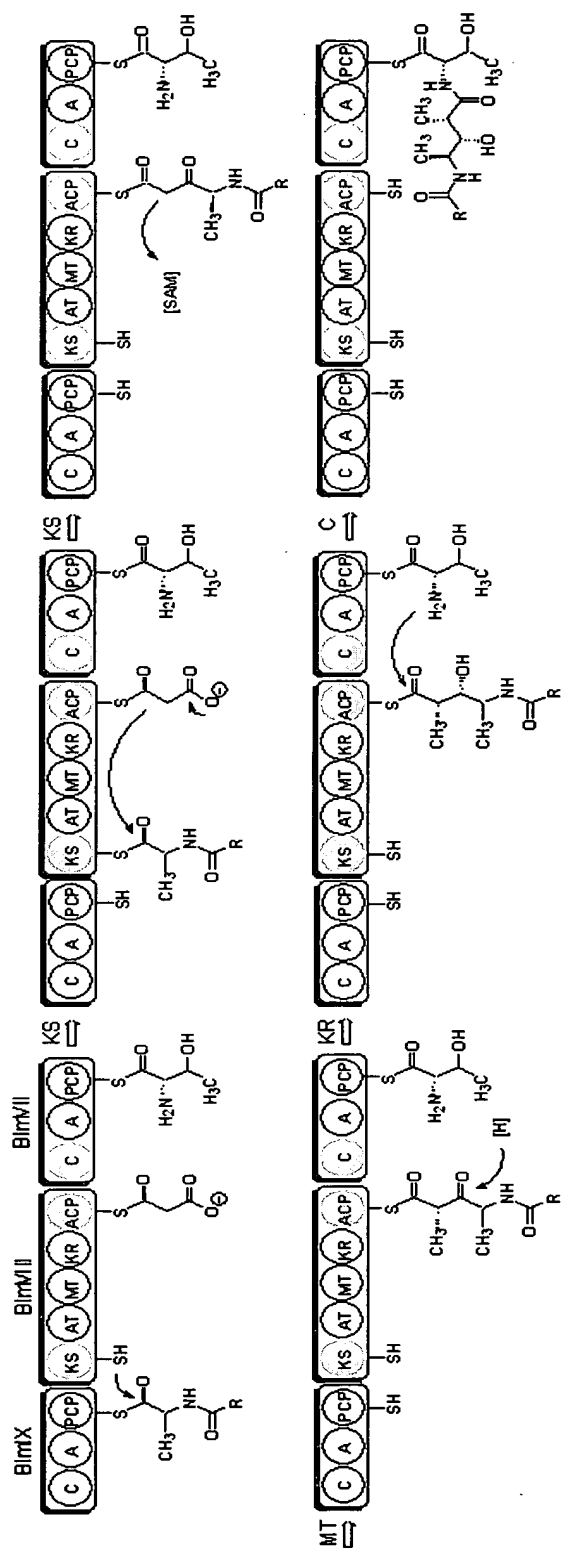


Fig. 4

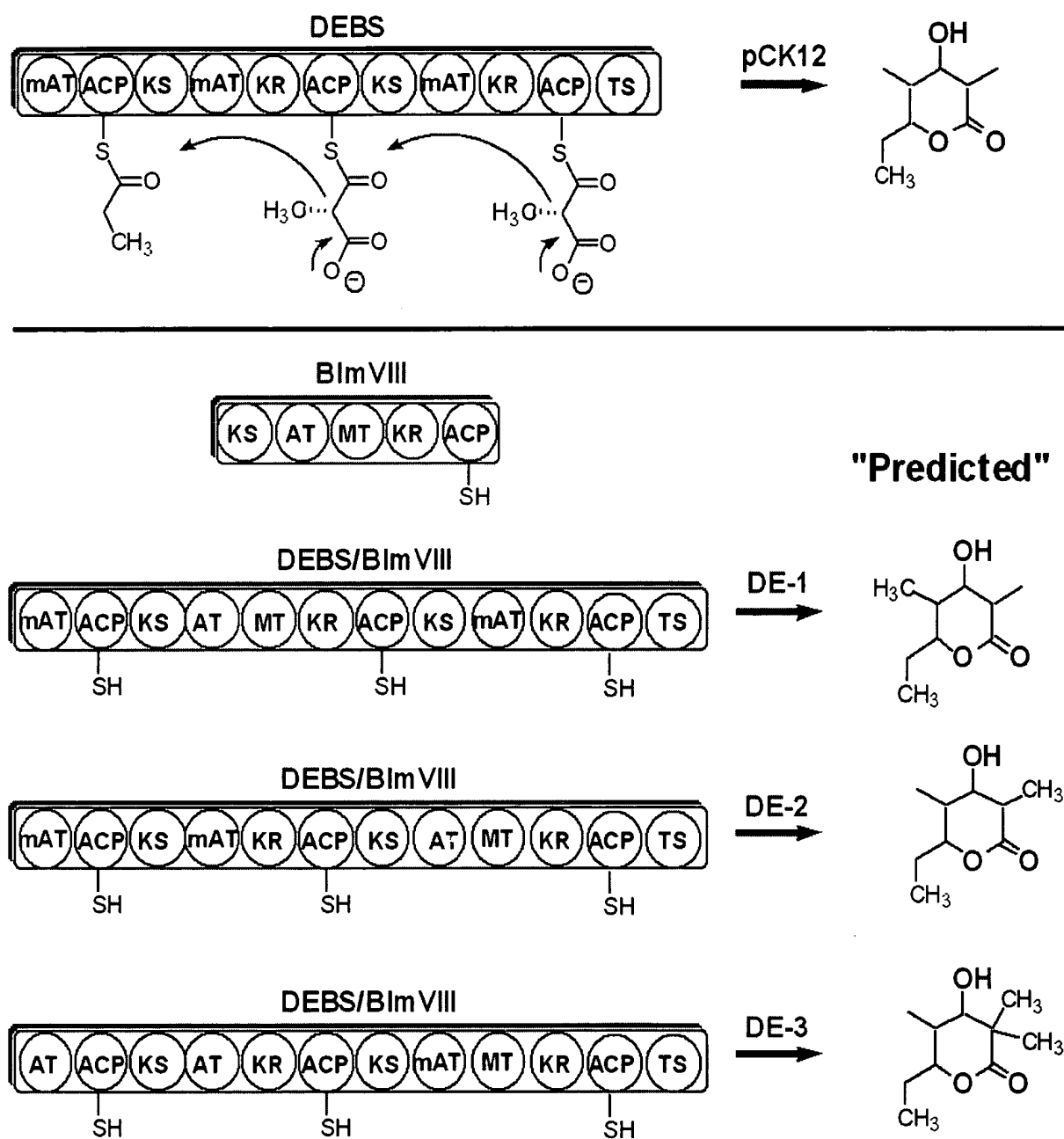


Fig. 5

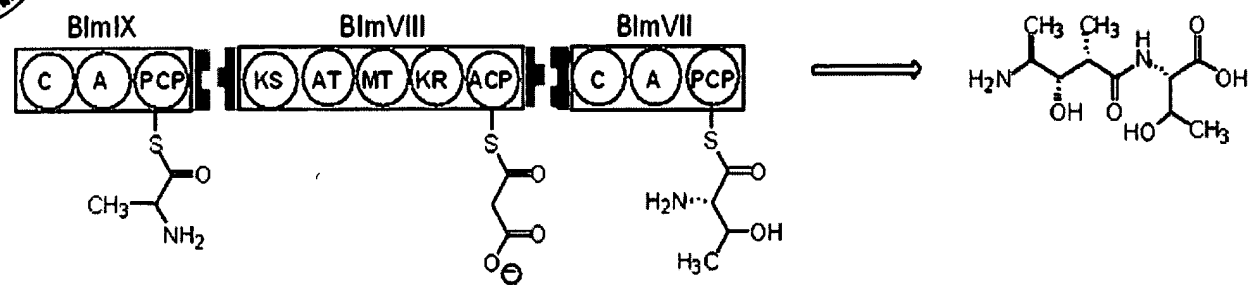


Fig. 6A

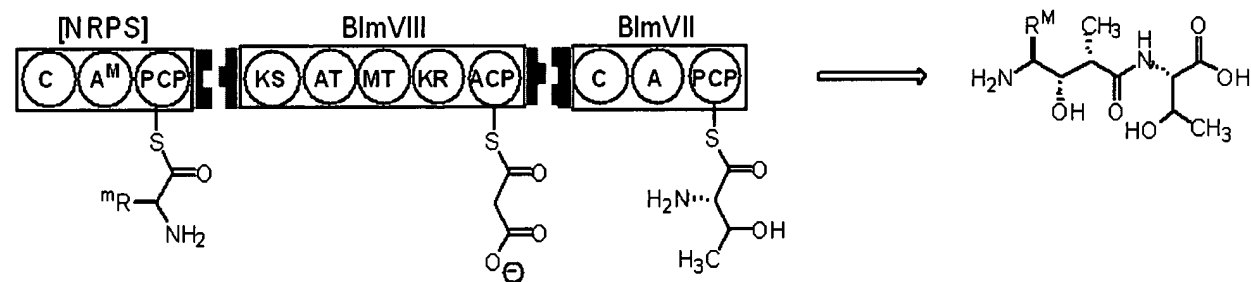


Fig. 6B

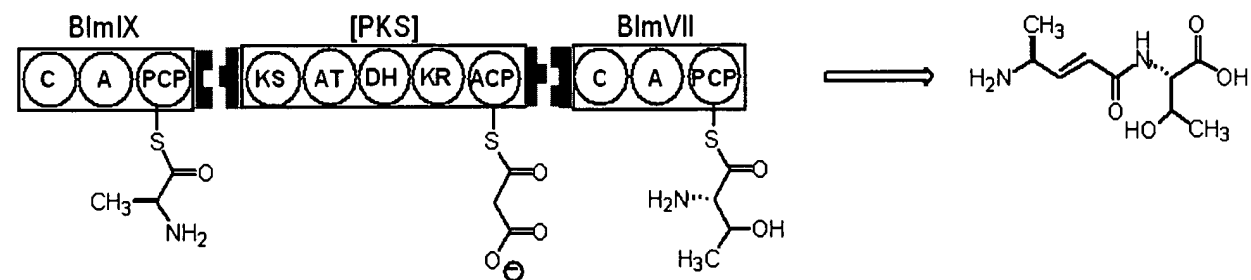


Fig. 6C

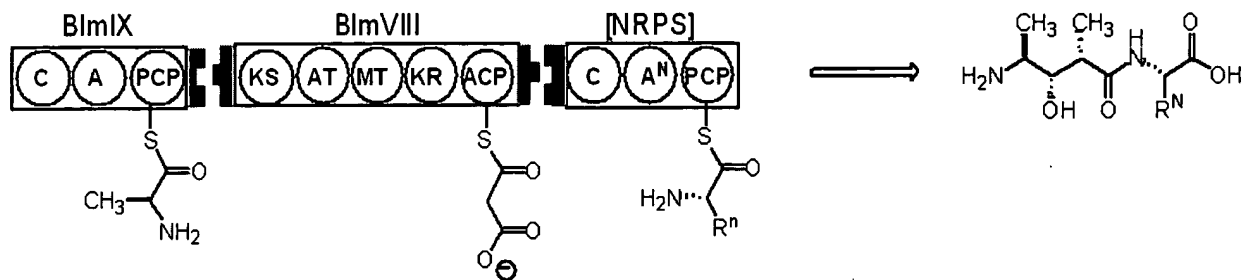


Fig. 6D

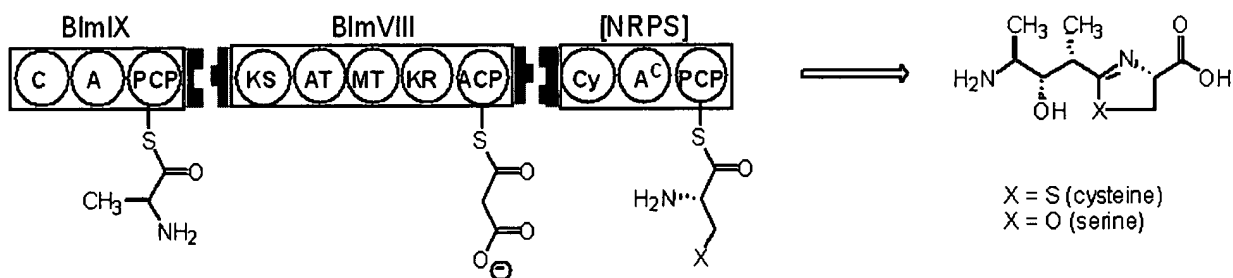


Fig. 6E

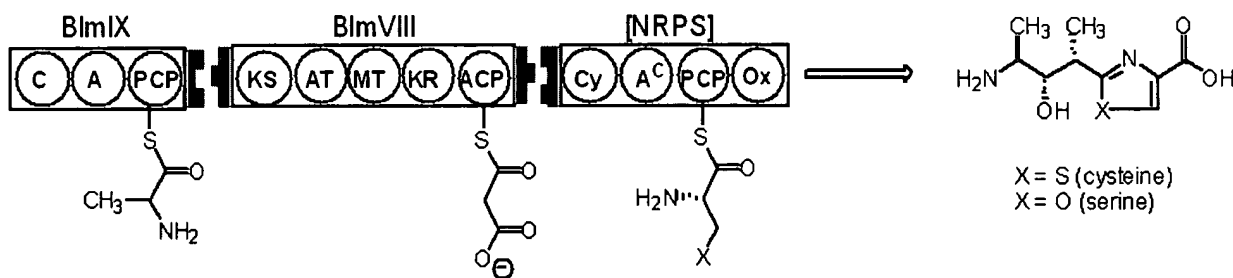


Fig. 6F



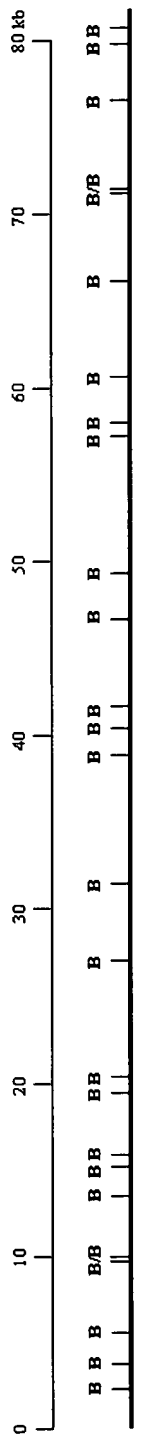


Fig. 8A

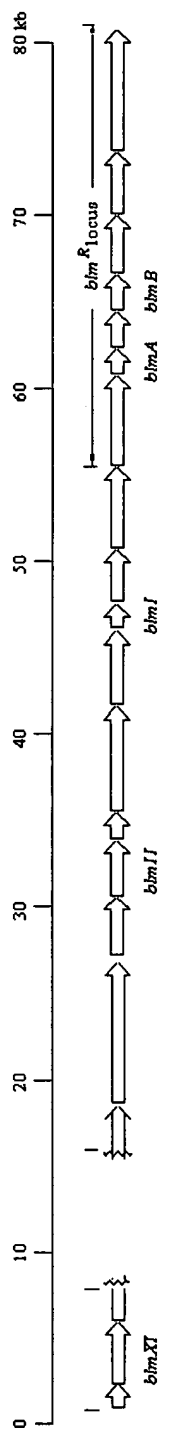


Fig. 8B



RECEIVED
SEP 25 2002
TECH CENTER 1600/2900

-18 RBS
ATGAGCGCCCGCGGCGAGCGGACCCGCGCGCTCGAACCGGACATCGCGCGATCTGCGCGAGACCTCGGCAGGGACAGCGTC 93
MSAPRGEGERTRRRALERDAIWAIEATLG RDSV
GGCCGCGACGAGACTTCGCGGCTGGCGGCACTCCATCCACGCCATCAAGATCACCAACCGGCTGGAGGAACTCGTCGACGCGCGAGCTG 186
GPHEDFAALGGNSIHAKITNRVEELVDAEL
TCCATCCGCGTCCTGCTCGAGACGCGCACCCCTGGCGGCGATGACGGACCCACGTCACCGCCACGCTCATCGGGGGAGCGGGACCGGTGA 273
SIRVLLLETRTVAGMTD HVA TLTG E R D R *

Fig. 8C



RECEIVED
SEP 25 2002
TECH CENTER 1600/2900

Grs-2 3045-I SIGTEYVAP TMLEGKLEEIWKDM GLQRM IIGLAKYIEETDTEQYMA-3134
Srfa-3 960-DQLAEWIGB NEMEEETIAQIWSEV GRKQI IIGLAKYIEETDTEQYMA-3134
Vir-S 557-GRSVEGRGVP TPQQEILASLFAEV GLSKV IIGLAKYIEETDTEQYMA-3134
Saf-B 1661-LDPGQDYLAB NELEARIAAIWEGL RRERV VDS FDL N-1705
BlmI 1-MSAPRGERTR RALERDIAAIWAET GRDSV P ED AAL N I-45
consensus 1-i g eyvapR le ia iw evLgr rvGiHddff lGhS1-45

Grs-2 3090-K MAVISQVHKECQTEVPLRVLE TP IIGLAKYIEETDTEQYMA-3134
Srfa-3 1005-K MTAVPH.QQELGIDL PVKLEF AP IAGISAYLLKNGSDGLQD-1048
Vir-S 602-L TRLTSRIRTVLGAELI VRDLEF AP VEALAEETLEEARVPAL-646
Saf-B 1706-L TRLATRLAATLQVQAGVRTVEF HR VAAQAAHFTQATKTHQAH-1750
BlmI 46-H IKITNRVEELVDAELS IRVLE TR VAGMTDHSVHATLTGERDR-90
consensus 46-kAmrv srV l ev vrvlfe pTvagla i g t -90

Fig. 9

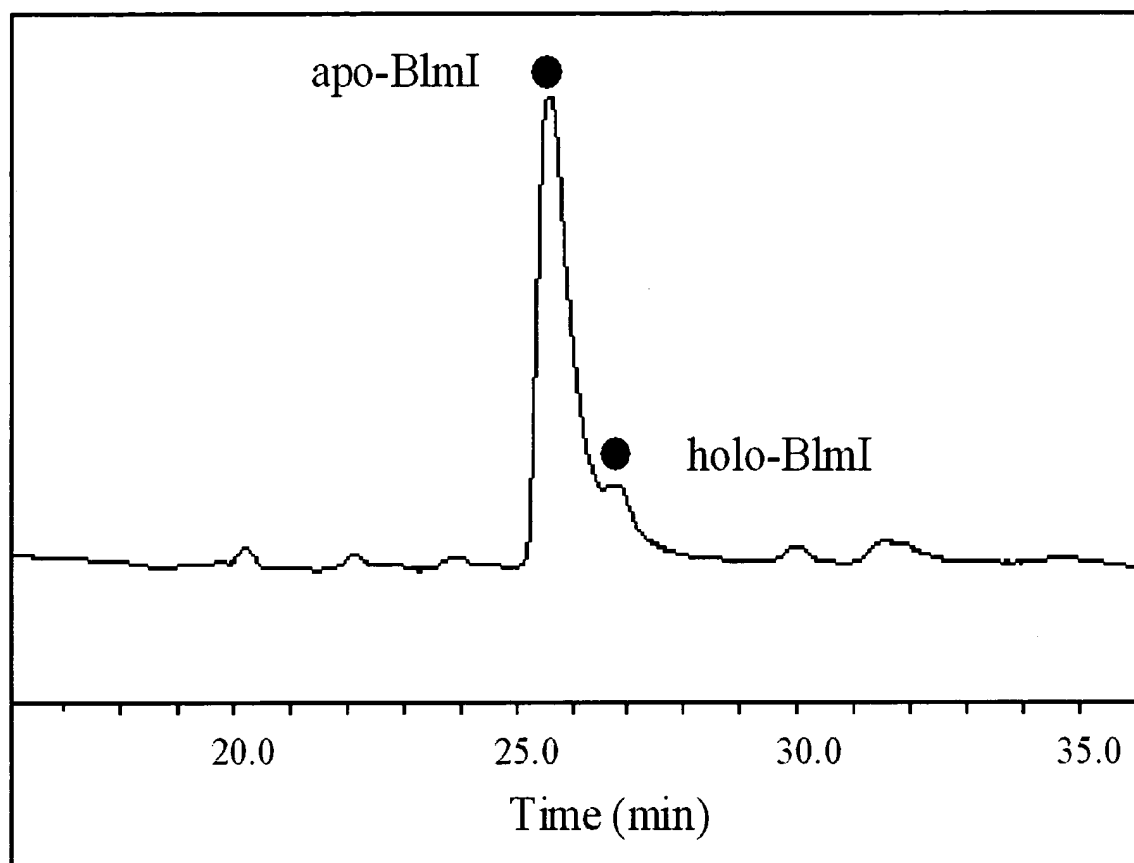


Fig. 10A



RECEIVED

SEP 25 2002

TECH CENTER 1600/2900

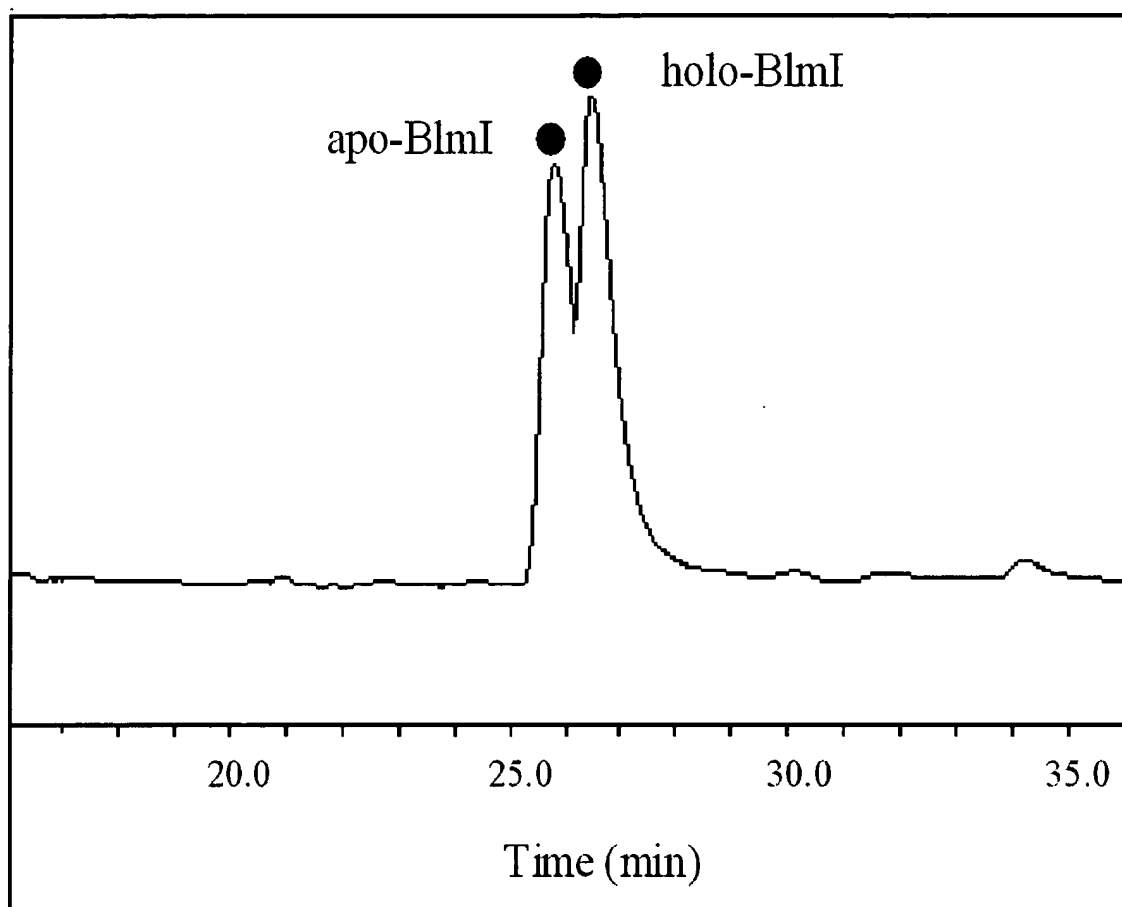


Fig. 10B

Nonreiterative Type I Modular Protein Template

Fig. 11A
PKS

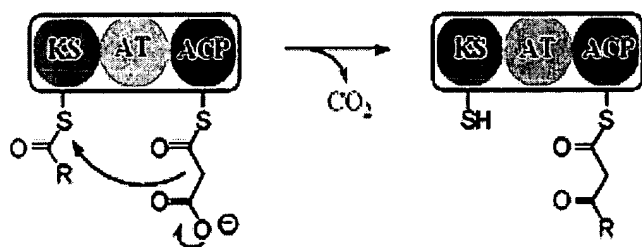
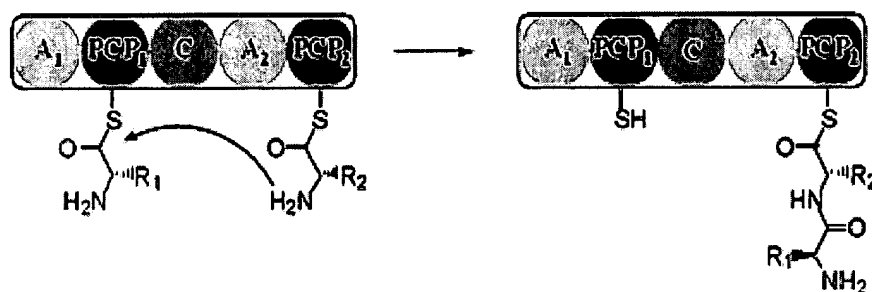


Fig. 11B
NRPS



Iterative Type II Protein Complex

Fig. 11C
PKS

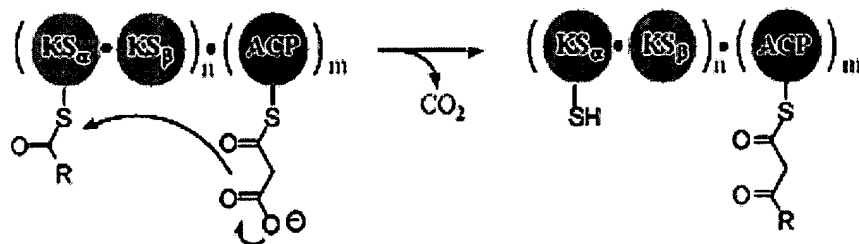
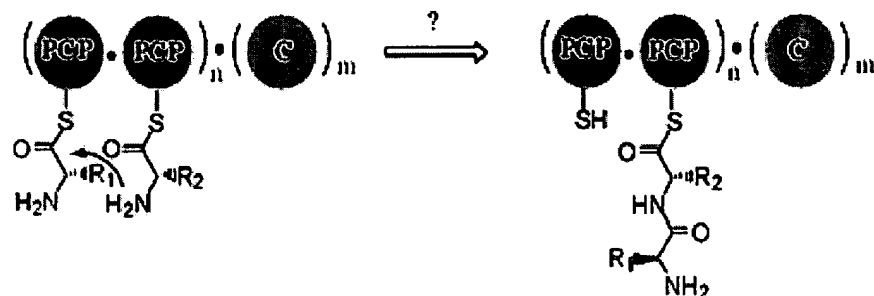


Fig. 11D
NRPS





RECEIVED
SEP 25 2002
TECH CENTER 1600/2900

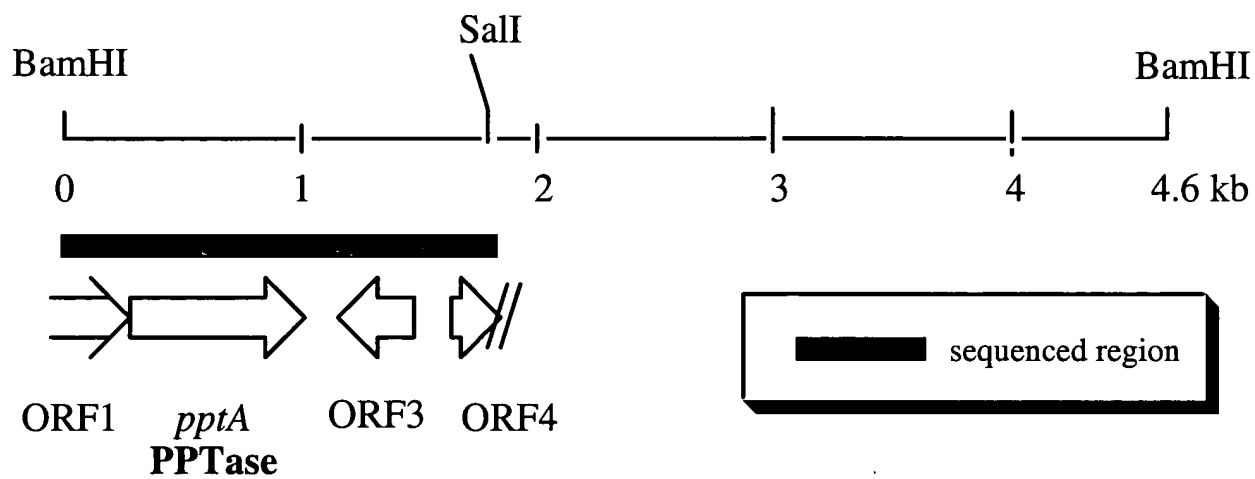


Fig. 13

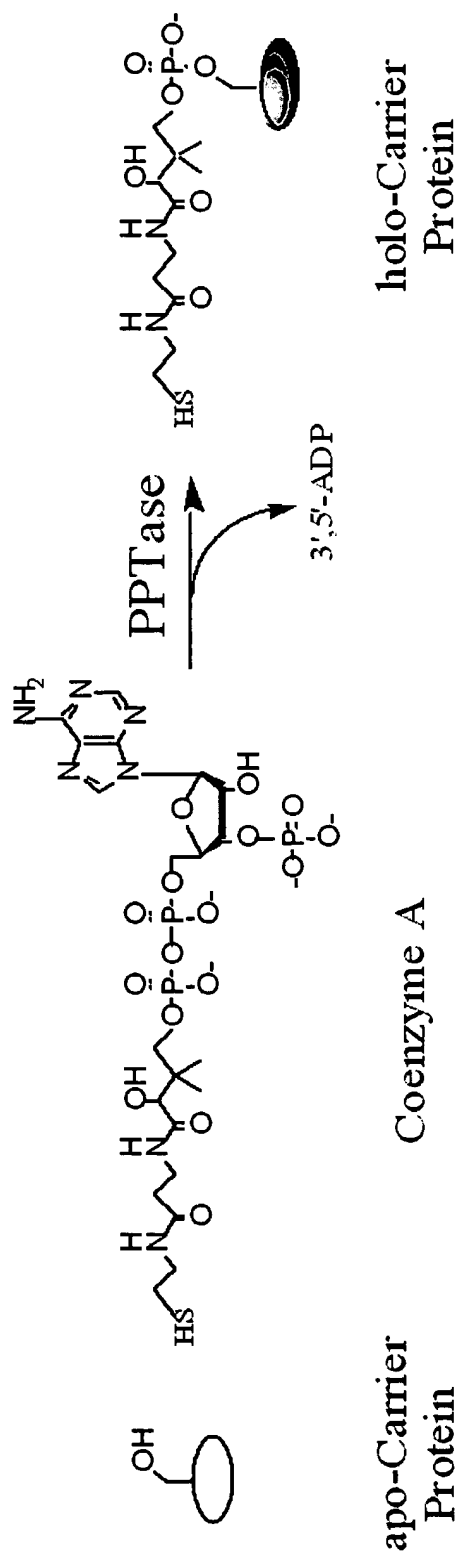


Fig. 12